

Amendment filed December 18, 2009

Reply to OA dated September 18, 2009

REMARKS

Claims 1, 4-9 and 12-16 stand rejected under 35 U.S.C. 103(a) as obvious over either Price (U.S. 5,439,593) or Cook (U.S. 6,761,885) in view of either Jaworek (U.S. 3,763,879) or Vidalinc (U.S. 2006/0118471). In particular, the Examiner concedes that Price and Cook do not disclose the recited abutting step part being abutted to a lower end of another cartridge, “the inner surface of the cartridge body located below is continued to the inner surface of the cartridge body located above so as to be substantially flush over said stopper part in the fitted state,” as recited in claim 1. However, the Examiner relies on Jaworek or Vidalinc to disclose the same (Action, page 2, lines 11-16).

Claim 1 has been amended to recite “an abutting step part formed on the inner surface of the cartridge body, said abutting step part being abutted to a lower end of the other cartridge body inserted therein by sliding from an upper end opening of the cartridge body into the cartridge body, wherein the inner surface of the cartridge body located below is continued to the inner surface of the cartridge body located above so as to be substantially flush over said stopper part in the fitted state.”

Support for this amendment can be found in Fig. 4 of this application.

Price and Cook fail to disclose or suggest an abutting step part which is abutted to a lower end of an other cartridge “inserted therein by sliding” from an upper end opening, the inner surface of the cartridge body being “substantially flush over said stopper part in the fitted state,” as now recited in claim 1. For example, Cook’s disposable columns are characterized by a large upper

orifice (Cook, col. 3, ll. 40-47) and a much smaller lower orifice, with tapered sections with a decreasing diameter extending downward (Cook, col. 3, ll. 48-61). Thus, as depicted in Fig. 2 of Cook, Cook's disposable columns do not form an inner surface that is substantially flush over a stopper part when two or more pipettes are stacked together as claimed. Likewise, as shown in Fig. 5 of Price, the passage way 16 for eluting the liquid phase in Price's solid phase extraction apparatus is narrow and does not form a substantially flush inner surface with the inner surface of its cylindrical body 2.

While, in the Action, the Examiner relies on Jaworek to modify the devices of Price and Cook to disclose the claimed invention, Jaworek's columns are joined by screwing an internal threaded portion on an external thread portion of an adjacent column—not by sliding into an abutting step part as now recited in claim 1. Thus, even if a person of ordinary skill in the art were to modify the devices of Price and Cook in view of Jaworek to form a substantially flush inner surface over the stopper part, the result would have been columns joined by threaded portions as taught by Jaworek. Accordingly, Jaworek does not teach or suggest modifying the devices of Price and Cook as to arrive at cartridges having an abutting step part in which the lower end of another cartridge may be inserted by sliding as to form a substantially flush inner surface over the stopper part as now recited in claim 1.

With respect to Vidalinc, applicants submit herewith a certified English translation of JP 2004-293613, the priority document from which the subject application claims priority. This priority

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document was filed on **October 6, 2004**, and its contents are substantially identical to that of the PCT application from which this national stage application has been derived. Vidalinc was filed on **November 4, 2004**, after the filing date of JP 2004-293613. Thus, Vidalinc is not a valid 35 U.S.C. 103(a) prior art reference against the claims of this application.

Accordingly, Price, Cook and Jaworek, singly or in combination, fail to disclose or suggest the stationary phase extraction cartridge now recited in claim 1. Since claims 4-9 and 12-16 depend therefrom, this rejection should be withdrawn.

Further, because the claimed cartridges are joined by sliding a lower portion of one cartridge into an abutting step part of another cartridge, it is easy and convenient to stack a plurality of the cartridges and then to separate them as needed. In addition, as stated in the specification and shown in Fig. 4 , because the stopper parts form an inner surface that is substantially flush, the fillers of several cartridges can be efficiently flushed together in one injection work (Spec., p. 7, ll. 4-23).

Rather than disclosing individual cartridge units which are joined together, Jaworek discloses a plurality of column components that essentially form one long column by screwing on additional units. In fact, Jaworek's columns are not complete individual units with a stopper part, an inflow side frit, a stationary phase filler, and an overflow side frit and an abutting step like the claimed cartridges. As a result, the device lacks the simplicity of the recited cartridge in its assembly or use.

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For example, Jaworek's columns cannot be stacked conveniently like the claimed cartridges, flushed in one injection work, and then conveniently separated into individual working units.

Likewise, neither Price nor Cook discloses cartridges which can form a flush inner surface when stacked together. Thus, the devices of Price nor Cook are not as effectively flushed in a stacked state because the flow would not be laminar. As stated above, Vidalinc is no longer a valid reference against the claims of this application. Thus, none of the cited references discloses or suggests the cartridge now recited in claim 1. This provides an additional reason for withdrawing this obviousness rejection.

Claims 5 and 6 stand rejected under 35 U.S.C. 103(a) as obvious over either Price (U.S. Patent No. 5,439,593) or Cook (U.S. Patent No. 6,761,885) in view of either Jaworek (U.S. Patent No. 3,763,879) or Vidalinc (U.S. Patent Publication No. 2006/0118471), and further in view of either August (U.S. Patent No. 6,530,288) or Serenko (U.S. Patent No. 5,989,424).

As stated above, Vidalinc is no longer a valid reference against the claims of this application. Further, Price, Cook and Jaworek do not disclose or suggest a cartridge in which an abutting step part abuts to a lower end of the other cartridge body that is "inserted therein by sliding" from an upper end opening of the cartridge body to form a substantially flush inner surface, as now recited in claim 1. August and Serenko do not disclose or suggest cartridges which may be stacked together. Thus, Price, Cook, Jaworek, August and Serenko, singly or in combination, do not disclose or

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suggest the cartridge now recited in claim 1. Claims 5 and 6 depend from claim 1. Accordingly, at least for this reason, this rejection should be withdrawn.

Claim 6 stands rejected under 35 U.S.C. 103(a) as obvious over either Price (U.S. Patent No. 5,439,593) or Cook (U.S. Patent No. 6,761,885) in view of either Jaworek (U.S. Patent No. 3,763,879) or Vidalinc (U.S. Patent Publication No. 2006/0118471), and either August (U.S. Patent No. 6,530,288) or Serenko (U.S. Patent No. 5,989,424), and further in view of each of Muller (U.S. Patent No. 4,732,687) and Radnoti (U.S. Patent No. 4,055,498).

As stated above, Price, Cook, Jaworek, August and Serenko do not disclose the cartridge now recited in claim 1. Muller and Radnoti also fail to disclose or suggest the same. Thus, none of the cited references discloses or suggests the cartridge now recited in claim 1. Claim 6 depends from claim 1. Accordingly, at least for this reason, this rejection should be withdrawn.

In view of the aforementioned amendments and accompanying remarks, each of the pending claims are in condition for allowance. Accordingly, an early action passing this application to issue as a patent is respectfully solicited.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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